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MULTI-VENDOR OUTSOURCING: RELATIONAL STRUCTURES AND ORGANIZATIONAL LEARNING FROM A SOCIAL RELATION PERSPECTIVE

Research-in-Progress

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Abstract

The increasing trend of engaging multiple vendors, coupled with the concern for "possible" loss of knowledge in outsourcing relationship, compels us to investigate organizational learning in multi-vendor outsourcing from a social relation perspective. The nature of social relation has been conceptualized in terms of how organizational relationships with social entities facilitate and/or inhibit knowledge flow and organizational learning. This research-in-progress study tries to investigate how three critical dimensions - structural, affective and cognitive - in social relations are associated with organizational learning approaches, i.e., exploitative learning or exploratory learning in the context of IT outsourcing. In particular, we examine how two different relational models - multi-vendor dominant model and single vendor dominant model - in the multi-vendor outsourcing are associated with the three dimensions of social relations by proposing six hypotheses. We intend to test them empirically via questionnaires in a field study. With the findings, we anticipate five major theoretical and practical contributions.

Keywords: Multi-vendor outsourcing, Relational structures, Organizational learning, Social relation perspective

Introduction

As the IT outsourcing market matures and the complexity of its projects increases, the need to develop an outsourcing portfolio by tapping on diverse expertise from different vendors radically increases (e.g., Levina and Su 2008). Indeed, many organizations that outsource their IT functions have engaged more than one vendor, i.e., a multi-vendor approach, as their main outsourcing relational strategy. The most well known case is Kodak's outsourcing contract with IBM, DEC, and Businessland (Applegate and Montealegre 1991). More recently, P&G also has signed contracts with several vendors, including HP, IBM, and EDS, for human resource systems, payroll, and customer relationship management systems (Patton 2007). According to a recent survey, around 45 percents of global CIOs are in favor of engaging multiple vendors, whereas only 17 percent prefer a single vendor (Kendrick 2006). This surge of interests in adopting the multi-vendor approach underscores organizations' strong preference for solutions characterized by the best of breed expertise, rather than that of a single vendor. Critically, it confers them with more effective learning by embracing different vendors that best meet their specific IT and business needs. As organizational learning takes place in the context of social interaction (Nahapiet and Ghoshal 1998), a multi-vendor approach is viewed more efficient for sharing meaningful knowledge among organizations than a

single vendor one. Based on this notion, an important issue involves identifying outsourcing relationships of the multi-vendor approach that facilitate knowledge flow and consequently, organizational learning.

However, a multi-vendor approach is more costly and complex, as compared to that of a single-vendor (Klotz and Chatterjee 1995). Not only do they have to better coordinate and communicate on issues such as the scope and details of the project, but also they have to better control the desired service level of each vendor. Undoubtedly, managing the relationships with multiple vendors in an effective way so as to exploit the full advantages of having various solutions is not an easy task. Although there have been a few studies about the multi-vendor approach and its comparison with the single vendor one, most previous works have primarily emphasized on conceptual arguments and normative prescriptions about the multi-vendor approach (Lacity and Willcocks 1998). That is, in spite of the fact that more and more organizations have adopted the multi-vendor approach, scant attention has been given on it in the context of IT outsourcing, especially in terms of its relational structures and their implications for organizational learning.

To fill the research gaps, the objective of our research-in-progress study is to identify basic relational structures of the multi-vendor outsourcing approach and to investigate their different impacts on client organizations' learning. Specifically, we seek to conceptually define and empirically examine a process of outsourcing value creation that links organizational learning and social relations, focusing on the knowledge flow between clients and their multiple vendors. First, we conceptualize two dominant types of multi-vendor approach (i.e., the single-vendor dominant model and the multi-vendor dominant model) and how they are associated with two different types of organizational learning (i.e., exploitative learning and exploratory learning). Second, we explain how the three dimensions of social relations (i.e., structural, affective, and cognitive) in the context of outsourcing help facilitate each type of organization learning in the two types of multi-vendor approaches, resulting in six hypotheses. Finally, the proposed hypotheses will be empirically tested using data collected from Korean client organizations.

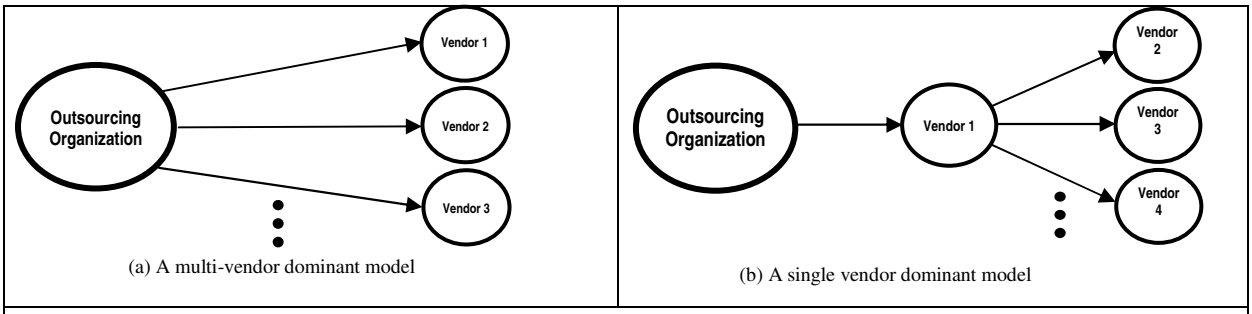
Relational Structures in Multi-vendor Outsourcing

The most fundamental approach, in terms of the number of vendors, has been the single vendor one (Ngwenyama and Bryson 1999). In this approach, clients can develop an exclusive relationship with a vendor and effectively coordinate outsourcing activities with one vendor (Ngwenyama and Bryson 1999). Despite some advantages, this strategy often exposes clients to vendors' opportunistic bargaining and performance failure vulnerability. By adopting the multi-vendor approach, clients hope to increase bargaining power and achieve better performance. With the multi-vendor approach, clients do have more options to switch or shift businesses between the vendors without incurring much switching cost. As there is a credible threat to switch vendors, each vendor is induced to provide a higher level of performance. This may partially explain why in many of today's outsourcing practices, clients prefer a multi-vendor approach to a single vendor one.

From the social relation perspective, there exist two typical relationship types that have been adopted by clients in the multi-vendor outsourcing approach: a multi-vendor dominant model and a single vendor dominant model (see Figure 1). For the multi-vendor dominant model (Figure 1(a)), clients contract with several different vendors independently. In this case, clients are responsible for communicating and collaborating with each vendor, as each vendor strives to demonstrate a high level of performance by delivering the required level of services. For the single vendor dominant model (Figure 1(b)), it extends the structure of a single vendor by directly contracting with one dominant vendor and indirectly contracting with other vendors through the dominant vendor. In this model, clients only communicate with the dominant vendor without direct collaboration with other vendors. It relinquishes all responsibilities related to outsourcing performance to the dominant vendor. Therefore, the dominant vendor has a duty to manage, control and even switch to other vendors. By establishing an exclusive relationship with the dominant vendor, clients can minimize communication and collaboration efforts with all vendors.

Making a choice between the two models is not easy, as clients contemplate over the pros and cons, in addition to their business conditions such as business complexity, an ability to control social entities, etc. Compounding the problem, clients would want to know which model can make a more significant contribution to enhance their internal IT capability and consequently create superior business value. March (1991) noted that these can be achieved through organizational learning, which takes place in the context of social interaction. Organizational learning in IT outsourcing basically assumes that clients and vendors share information and knowledge with each other to achieve outsourcing objectives (Mees and Schmitt 2008), even though they have different motivations for knowledge sharing. In knowledge sharing activities, clients focus on identifying undesirable conduct and reducing relationship complexity in order to reduce risk, including the misuse of the knowledge shared with their vendors. In

contrast, vendors place an emphasis on manifesting desirable conduct and giving a positive impression to the clients, not only for the current project, but also for future business opportunities.



(a) A multi-vendor dominant model

(b) A single vendor dominant model

Figure 1. Two Relational Types in Multi-vendor Outsourcing

Organizational Learning in Multi-vendor Outsourcing

Typically, the short-term objective of IT outsourcing is to increase organizational IT capability to provide better services for both internal and external customers, while the long-term goal is to create new and superior business value based on better IT capability. In this study, IT capability is defined as the ability to which an organization effectively acquires, distributes, and leverages IT related resources. The most distinctive and inimitable resource in organizations is knowledge that enables them to effectively utilize and transform diverse organizational resources and assets (Grant 1996). Therefore, by acquiring new meaningful knowledge and integrating it into the existing knowledge, organizations can enhance IT capability and consequently generate superior business value. As the source of this value creation, organizational learning is defined as "the process of improving actions through better knowledge and understanding" (Fiol and Lyles 1985). According to March (1991), there are two alternative types of organizational learning - exploitative and exploratory.

Exploitative learning pursues advanced knowledge by refining and extending existing competencies, technologies, and knowledge to enrich current business value (March 1991) whereas exploratory learning pursues new knowledge and alternatives that do not exist in the organization to create currently unknown business value and opportunities (March 1991). The two different types of organizational learning result from not only different patterns of knowledge flow, but also different relationship structures between organizations (Kang et al. 2007).

In many cases, clients improve their IT capabilities by refining and deepening existing knowledge stocks and finding ways to leverage them (Schumpeter 1961). This could be achieved through exploitative learning. Extrapolating to the multi-vendor outsourcing context, a single vendor dominant model would allow clients to extract more localized and in-depth solutions from existing knowledge bases with a dominant vendor. Schulz (2001) pointed out that the outcome of exploitative learning is generally more certain and less diverse in process and outcomes than that of exploratory learning. In other words, exploitative learning is more gradual, more routine, and more focused on the current business operations, as in the case of the single vendor dominant model (Dewar and Dutton 1986).

However, to create business value, exploratory learning is vital. It pursues radically new ideas and opportunities based on relatively broad range of knowledge search (Luo and Peng 1999), which would be achieved by establishing direct communication channels with numerous vendors and absorbing their diverse IT expertise as in the case of the multi-vendor dominant model. Organizations adopting this learning approach would be able to achieve radical innovations and to improve organizational dynamic capability by expanding knowledge stocks and enhancing new recombinatory mechanisms, thereby leading to dramatic improvement of organization performance.

Taken together, organizations can choose either exploitative learning (i.e., a single vendor dominant model) or exploratory learning (i.e., a multi-vendor dominant model). Both approaches are potentially important, but their differences will trigger organizations' adoption based on their business objectives and conditions.

Organizational Learning from the Social Relation Perspective

Understanding both exploitative and exploratory learning is critical because organizational learning generally takes place in the context of social interaction. The nature of social relation has been conceptualized in terms of how organizational relationships with social entities facilitate and/or inhibit knowledge flow and organizational learning.

We use the term social relations to deliver the common meaning among diverse terminologies such as social capital, social network, and social embeddedness (Alder and Kwon 2002; Nahapiet and Ghoshal 1998). This body of research suggests that social relations vary along three critical dimensions: structural, affective, and cognitive. We hence try to investigate how these critical dimensions in social relations relate to two different organizational learning approaches. In particular, we examine how two different relational models are associated with the three dimensions of social relations in the context of multi-vendor outsourcing, as summarized in Table 1.

Table 1. Relational Components in IT Outsourcing Context

Dimension	Exploitative learning (Single vendor dominant model)		Exploratory learning (Multi-vendor dominant model)	
	Social Relation Perspective	IT Outsourcing Type	Social Relation Perspective	IT Outsourcing Type
Structural	Strong/dense networks	Core function outsourcing	Weak/diverse networks	Supportive function outsourcing
Affective	Generalized trust	Partnership style outsourcing	Dyadic trust	Transaction style outsourcing
Cognitive	Architectural knowledge	Business value outsourcing	Component knowledge	IT capability outsourcing

Structural Dimension

Organizational learning is primarily determined by the relational structure, which represents the patterns of connections between organizations. Depending on the connection patterns, organizations will exhibit different opportunities for identifying other organizations' knowledge within and across the organization. Uzzi (1997) proposed the strength of ties and network density as two major connection patterns between organizations. Strength of ties basically represents how tightly organizations are connected in a network, whereas network density indicates the degree of redundant connections in the network. Prior literature on social network and social capital explains that strong and dense connections make organizations share specific and in-depth knowledge (e.g., Leana and Van Buren 1999), which supports exploitative learning through a single vendor dominant model. Between the two tightly connected organizations, they interact more frequently and consequently have a higher chance of identifying and accessing other parties' in-depth knowledge.

In a single vendor dominant model, clients and their dominant vendor generally have a tight and exclusive relationship, which is generally adopted for core function outsourcing projects (Nahapiet and Ghoshal 1998). Since clients outsource their core IT functions, they need to work closely with the dominant vendor not only to reduce serious risk if vendors mishandle the critical shared knowledge, but also to frequently meet together and densely exchange each other's knowledge to increase manageability. Therefore, clients in this model are able to exchange valuable knowledge more intensively with its dominant vendor through core-function outsourcing, which can facilitate institutionalized knowledge flow.

H1: When core IT functions are outsourced, a single vendor dominant model will be preferred to facilitate flows of more refined and in-depth knowledge between a client and its multiple vendors.

The main disadvantage of strong and dense social connections is the limited acquisition of knowledge within restricted social boundaries (Gargiulo and Benassi 2000), though it is fine-grained and in-depth. On the contrary, weak and diverse social connections are likely to enable organizations to identify and access novel and unique knowledge by allowing connections with more organizations (Burt 1992; Granovetter 1973). By doing so, organizations are less structurally embedded but have more channels for task-oriented information flows, which are more useful in outsourcing non-core IT functions (Nahapiet and Ghoshal 1998). In this sense, clients that have diverse connections with vendors by outsourcing non-core functions have more opportunities to communicate with them, to exchange diverse and specialized knowledge, and consequently to gain a broad range of novel knowledge.

H2: When non-core IT functions are outsourced, a multi-vendor dominant model will be preferred to facilitate flows of more novel and broad knowledge between a client and its multiple vendors.

Affective Dimension

As social relations are built and evolved through social exchange processes, affective qualities play a critical role in the knowledge exchange among organizations (Adler and Kwon 2002). Without trust, it may be difficult for

organizations to share knowledge with their socially connected parties (Gupta and Govindarajan 2000). Prior studies on the affective dimension suggested that two distinct forms of trust - generalized trust and dyadic trust - exist in social connections. While generalized trust refers to institution level trust, dyadic trust refers to trust generated by having direct experience with each other (Jones and George 1998).

In the situation where interdependent organizations in social relations cooperate as a cohesive unit, as in the case of a single vendor dominant model, the focus of organizational learning is on deepening and refining knowledge in a certain domain, i.e., exploitative learning (Dyer and Nobeoka 2000). In the outsourcing context, the cohesive cooperation is viewed as partnership (Lacity and Willcocks 1998). In a partnership-like relationship, generalized trust can be essential for sharing and exchanging knowledge because it is not necessary to have personal experience with each other in social networks. Rather, trust is established based on reciprocity expectations derived from the norms and membership among organizations as a whole (Putnam 1993). Also, interdependent organizations with strongly shared norms can exchange valuable and in-depth knowledge, but restrict relationships with other social units, which results in the failure to gain new knowledge from a broader range of sources (Jones and George 1998). Therefore, the single vendor dominant model based on partnership relationships tends to foster exploitative learning, but does not expand knowledge sources required for exploratory learning.

H3: When partnership-like relationships are developed, a single vendor dominant model will be preferred to facilitate flows of more refined and in-depth knowledge between a client and its multiple vendors.

On the other hand, in order to facilitate exploratory learning, dyadic trust may be more pertinent than generalized trust in social relations. Dyadic trust tends to be developed by having direct and positive exchange experiences with social units, as in the case of multi-vendor dominant model. Organizations having dyadic trust about their socially connected units can exchange knowledge without constraining efforts to seek other units (Bearman 1997; Leana and Van Buren 1999). The literature on social relations suggest that compared to generalized trust, dyadic trust requires less effort to create and maintain, but narrower commitment to social units (e.g., Jones and George 1998) because it is generally developed based upon transaction-like relationships (Lacity and Willcocks 1998). Therefore, it allows organizations to flexibly adapt their relationships with several social units. However, due to the nature of transaction-like relationships, social relations based on dyadic trust, like the multi-vendor dominant model, are restricted in terms of relationship duration and scope, which results in the limited exchange of refined and in-depth knowledge between organizations (Leana and Van Buren 1999). Instead, broader and novel knowledge to explore new opportunities can be exchanged among organizations without institutionalized norms and pressures that are required for generalized trust.

H4: When transaction-like relationships are developed, a multi-vendor dominant model will be preferred to facilitate flows of more novel and broad knowledge between a client and its multiple vendors.

Cognitive Dimension

The focus of cognitive dimension in social relations is shared mental process and models, including perception, understanding, reasoning, and judgment, that are required for organizational learning (Grant 1996). For example, Lane and Lubatkin (1998) suggest that the ability to effectively exchange new knowledge between social units is mainly determined by the similarity of their mental processes and knowledge base. Evidently, a shared mental process plays a critical role for organizations to facilitate organizational learning. Henderson and Clark (1990) propose two distinct forms of knowledge - component and architectural knowledge - that are needed to create value-added products in social relations. Whereas component knowledge refers to constituent knowledge rather than the whole, architectural knowledge refers to the overall knowledge generated from a shared understanding of how all components are well fitted (Matusik and Hill 1998).

For exploitative learning, it is suggested that organizations get benefits by understanding how their knowledge is integrated into a whole (Dyer and Nobeoka 2000). Thus, architectural knowledge facilitates organizations' combination of their own knowledge with others, thereby creating superior business value (Shane and Venkataraman 2000; Weick and Roberts 1993). It provides a cognitive mechanism for exchanging large amounts of knowledge and complex knowledge among organizations. Therefore, architectural knowledge facilitates organizations to identify and absorb deeper knowledge, which affects the interconnection of all components, from their social partners. In this sense, clients that pursue exploitative learning through the single vendor dominant model are likely to gain higher business value by achieving the objective of IT outsourcing.

H5: When IT outsourcing focuses on enhancing business value, a single vendor dominant model will be preferred to facilitate flows of more refined and in-depth knowledge between a client and its multiple vendors.

For exploratory learning which creates new knowledge, it may be unnecessary for all connected organizations to share their architectural knowledge. Instead, clients only need to understand their vendors' specialties to assimilate, interpret, and utilize them to increase IT capability, rather than business value, through outsourcing (Grant 1996). Furthermore, when exchanged knowledge is novel, component knowledge helps organizations preoccupy a better position to better capitalize on the new knowledge (Takeishi 2002). Therefore, component knowledge exchanged between clients and their vendors allows them to identify and absorb novel knowledge to pursue exploratory learning.

H6: When IT outsourcing focuses on improving IT capability, a multi-vendor dominant model will be preferred to facilitate flows of more novel and broad knowledge between a client and its multiple vendors.

Research Design and Current Status

We plan to develop a questionnaire based on previous literature and the comments gathered from interviews. The survey instrument will be developed either by adapting existing measures to the research context, or by converting the definitions of the constructs into a questionnaire format. For example, explorative learning will be assessed in terms of the degree of exploration of new knowledge for future IT services and new IT experimentation, while exploitative learning will be measured in terms of utilizing existing knowledge for current IT services and existing IT reuse (Brown et al 2001). The sampling frame for this study will be compiled from 1,000 large firms listed in Maeil Business Newspaper's Annual Corporation Reports in Korea. As top IS managers are expected to be knowledgeable about their outsourcing relationship with vendors, they will be regarded as key informants for the study. Since we are still in the process of refining measures and identifying potential respondents to carry out a big scale main survey, we certainly welcome any comments and feedbacks on this research-in-progress paper.

Potential Contributions

Motivated by inadequacies in extant studies, our research hopes to contribute to the outsourcing field in these five ways: First, we hope to advance the understanding of multi-vendor outsourcing by integrating two sets of theories, on organizational learning (March, 1991) and relational structures. In doing so, we accentuate the fact that the structure of multi-vendors is not a haphazard one, but can be instrumental in charting the immediate IT capacity and future business value of clients. Organizational learning can only be effective by adopting the appropriate structural, affective and cognitive dimensions (Blau 1964; Nonaka 1991; Uzzi 1997). In the decision to outsource, top management should not only contend between single and multiple vendors, but also factor into considerations the two possible multi-vendor models. Again, we hope to elucidate this lack of differentiation that has caused some to misconstrue and assume that engaging multiple vendors has only one kind of structural and relational arrangement. Also, in prior studies, the discourse on structural and relational arrangement often touches on communication and control, but often falls short of scrutinizing its impact on organizational learning. The failure to do so may make clients wonder why they fail to reap the intended benefits of multi-vendor outsourcing.

Second, our focus on organizational learning in multi-vendor outsourcing also seeks to reaffirm the value of IT and IT outsourcing, and to rectify some misconceptions about the phenomenon of IT outsourcing as exemplifying IT does not matter. Carr (2003) has generated some controversy when he raises the question that IT might have relegated its value to that of a "commodity", no more conferring any strategic advantage. Hence, when our research brings salience the idea of exploitative learning and exploratory learning, we reinstate and underscore the ability of IT outsourcing to catapult clients to further heights, by enhancing their IT capacity and innovating their business value. In essence, clients can and should continue to learn and grow, exploiting and exploring as much of IT's strategic and transformational ability as possible.

Third, we offer a paradoxical view on IT outsourcing. Several articles (e.g., Tafti 2005) have expressed concerns that clients are "losing knowledge" when they engage in outsourcing. Argubaly, clients have to first divulge their business and IT knowledge to vendors, so that the latter can better understand and address the formers' needs. Upon outsourcing, clients will further lose knowledge because they are unaware of what is happening to the outsourced IT functions or department. Hence, backsourcing is often plagued with difficulty. Our research seeks to challenge the

interesting view on knowledge loss and instead, propose a paradoxical view of knowledge gain and learning through outsourcing, and not from only one vendor but many vendors.

Fourth, upon conducting our study, we hope to add to the lack of empirical research in the studies of multi-vendor outsourcing. Aforementioned, most studies have settled for conceptual arguments and normative prescriptions (Lacity and Willcocks 1998). By verifying our theoretical conjectures against actual data, we would be able to either confirm our predictions, or seek alternative explanations to unsupported hypotheses. With tested results and evidence, our arguments can be better fortified. In sum, our empirical results should add value to the existing methodologies on multi-vendor outsourcing.

Finally, our study seeks to offer practical and important implications to two groups of stakeholders: clients and vendors. For clients, there are two important takeaways: (i) that strategic decision making is not just about one or more vendors, but should embrace the possible structures of multi-vendor models; (ii) that IT outsourcing should not be perceived as its devaluation, but rather a chance to further exploit the wealth of knowledge internationally. Likewise, for vendors, our findings hope to benefit them in these two ways: (i) that they can better craft their bidding packages so as to better tailor to the "organizational learning" needs of clients; and (ii) that only by sharing their expertise (as opposed to hoarding and locking the clients in) will they be able to achieve a win-win situation in IT outsourcing.

We hope that our research can help shed a seminal light on how clients can better engage in exploitative and exploratory learning, so as to reap the benefits in multi-vendor outsourcing and better position themselves in the long run.

References

Applegate, L.M. and Montealegre, R. "Eastman Kodak: Managing information systems through strategic alliances," *Harvard Business School* 9-192-030, Boston, MA, 1991.

Adler, P.S. and Kwon, S.W. "Social Capital: Prospects for a New Concept," *Academy of Management Review*, (27), 2002, pp.17-40.

Bearman, P. "Generalized Exchange," *American Journal of Sociology* (102), 1997, pp.1383-1415.

Blau, P. *Exchange and Power in Social Life*, Wiley, New York, 1964.

Brown, T.E., Davidsson, P. and Wiklund, J. "An Operationalization of Stevenson's Conceptualization of Entrepreneurship as Opportunity-Based Firm Behavior," *Strategic Management Journal* (22), 2001, pp.953-968.

Burt, R.S. *Structural Holes: The Social Structure of Competition*, Harvard University Press, Cambridge, MA, 1992.

Carr, N.G. "IT Doesn't Matter," *Harvard Business Review* (81:5), 2003, pp.41-49.

Dewar, R.D. and Dutton, J.E. "The Adoption of Radical and Incremental Innovations: An Empirical Analysis," *Management Science* (32), 1986, pp.1422-1433.

Dyer, J.H. and Nobeoka, K. "Creating and Managing a High-performance Knowledge-sharing Network: The Toyota Case," *Strategic Management Journal* (21), 2000, pp.345-367.

Fiol, C.M. and Lyles, M.A. "Organizational Learning," *Academy of Management Review* (10:4),1985, pp. 803-813.

Garanovetter, M.S. "The Strength of Weak Ties," *American Journal of Sociology* (78), 1973, pp.1360-1380.

Gargiulo, M. and Benassi, M. "Trapped in Your Own Net? Network Cohesion, Structural Holes, and Adaptation of Social Capital," *Organization Science* (11), 2000, pp.183-196.

Grant, R.M. "Toward a Knowledge-based Theory of the Firm," *Strategic Management Journal* (17), 1996, pp.109-122.

Gupta, A.K. and Govindarajan, V. "Knowledge Flows within Multinational Corporations," *Strategic Management Journal* (21), 2000, pp.473-496.

Henderson, R.M. and Clark, K.B. "Architectural Innovation: The Reconfiguration of Existing Product Technologies and the Failure of established Firms," *Administrative Science Quarterly* (35), 1990, pp.9-30.

Jones, G.R. and George, J.M. "The Experience and Evolution of Trust: Implications for Cooperation and Teamwork," *Academy of Management Review* (23), 1998, pp.531-546.

Kang, S., Morris, S.S., and Snell, S.A. "Relational Archetypes, Organizational Learning, and Value Creation" Extending the Human Resource Architecture," *Academy of Management Review* (32:1), 2007, pp.236-256.

Kendrick, C. "Multi-Vendor Outsourcing Preferred," *The Outsourcing Weblog*, September 29, 2006 (http://www.outsourcing-weblog.com/50226711/multivendor_outsourcing_preferred.php)

Klotz, D.E. and Chatterjee, K. "Dual Sourcing in Repeated Procurement Competitions," *Management Science* (41:8), August 1995, pp.1317-1327.

Lacity, M.C. and Willcocks, L.P. "An Empirical Investigation of Information Technology Sourcing Practices: Lessons from Experience," *MIS Quarterly* September 1998, pp.363-308

Lane, P.J. and Lubatkin, M. "Relative Absorptive Capability and Interorganizational Learning," *Strategic Management Journal* (19), 1998, pp.461-477.

Leana, C.R. and Van Buren, H.J. "Organizational Social Capital and Employment Practices," *Academy of Management Review* (24), 1999, pp.538-555.

Levina, N. and Su, N. "Global Multisourcing Strategy: The Emergence of a Supplier Portfolio in Services Offshoring," *Decision Sciences* (39:3), 2008, pp.541-570.

Luo, Y. and Peng, M.W. "Learning to Compete in a Transition Economy: Experience, Environment, and Performance," *Journal of International Business Studies* (30), 1999, pp.269-296.

March, J.G. "Exploration and Exploitation in Organizational Learning," *Organization Science* (2), 1991, pp.71-87.

Matusik, S.F. and Hill, C.W. "The Utilization of Contingent Work, Knowledge Creation, and Competitive Advantage," *Academy of Management Journal* (23), 1998, pp.680-697.

Mees, U. and Schmitt, A. "Goals of Action and Emotional Reasons for Action. A Modern Version of the Theory of Ultimate Psychological Hedonism," *Journal for the Theory of Social Behaviour* (38:2), 2008, pp.157-178.

Nahapiet, J. and Ghoshal, S. "Social Capital, Intellectual Capital, and the Organizational Advantage," *Academy of Management Review* (23), 1998, pp.242-266.

Ngwenyama, O. K. and Bryson, N. "Making the Information Systems Outsourcing Decision: A Transaction Cost Approach to Analyzing Outsourcing Decision Problems," *European Journal of Operational Research* (115), 1999, pp.351-367.

Nonaka, I. "The Knowledge-creating Company," *Harvard Business Review* (69:6), 1991, pp.96-104.

Patton, S. "Cutting Cost with Multiple Outsourcers," *CIO Magazine*, January 16, 2007.

Putnam, R. "The Prosperous Community: Social Capital and Public Life," *American Prospect* (13), 1993, pp.35-42.

Schulz, M. "The Uncertain Relevance of Newness: Organizational Learning and Knowledge Flows," *Academy of Management Journal* (44), 2001, pp.661-681.

Schumpeter, J.A. *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle*, Oxford University Press, New York, 1961.

Shane, S. and Venkataraman, S. "The Promise of Entrepreneurship as a Field of Research," *Academy of Management Review* (25), 2000, pp.217-226.

Tafti, M.H.A. "Risks Factors Associated with Offshore IT Outsourcing," *Industrial Management & Data Systems* (105:5), 2005, pp.549-560.

Takeishi, A. "Knowledge Partitioning in the Interfirm Division of Labor: The Case of Automotive Product Development," *Strategic Management Journal* (22), 2002, pp.321-329.

Uzzi, B. "Social Structure and Competition in Interfirm Networks: The Paradox of Embeddedness," *Administrative Science Quarterly* (42), 1997, pp.35-67.

Weick, K.E. and Roberts, K.H. "Collective Mind in Organizations: Heedful Interrelating on Flight Decks," *Administrative Science Quarterly* (38), 1993, pp.357-381.